



IntelliDrive(sm) for Safety, Mobility and User Fees

Symposium on Mileage Based User Fee: Moving Forward
April 20, 2010

Your Destination...Our Priority





2007 Regular Session

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\$5,000,000 is for a pilot project to demonstrate technologies that will allow for the future replacement of the gas tax with a fuel-neutral mileage charge.





Project Progress

- **Phase 1 Complete**
 - **Concept of Operations**
 - **High Level Requirements**
 - **Implementation Scope of Work**
 - **Preliminary Evaluation Plan**
- **Phase 2 Implementation and Evaluation**
 - **Negotiating Implementation Contract**





What is Unique?

- Consumer Devices
- Implement MBUF alongside IntelliDrive(sm) Apps
- Manual Odometer Reading for Transition
 - Separates MBUF Decisions from Gas Tax Decisions





MBUF Requirements

- **500 Vehicles**
- **Vendor Proposed Method for Measuring Miles**
- **Fees by Zone and Time of Day**
- **Transmit Accumulated Categorized Miles**
 - **Combination of Country, State, Local Jurisdiction, Congestion Zone, Peak/Non-Peak Time**
 - **Option to record trip details on-board**





MBUF Requirements

- **Monthly Billing**
 - **Pay with Cash, Check or Credit**
- **Display Current Rate**
- **Wright County for Zone evaluation**
- **Enforce Using Vehicle Registration**





In-Vehicle Signing Requirements

- School Zones
- Work Zones
- Speed Zones
- Intersection Warnings
 - 5.9 GHz Dedicated Short Range Communications
 - Demo DSRC with 5 vehicles
- Optional Feature





Traveler Info / Probe Data Requirements

- Location Specific Traveler Information to Vehicle
- Travel time probe data from vehicle
 - Probe Data Detailed but Anonymous, Versus
 - MBUF Data Personal but Not Detailed
- Probe Data is Optional Feature





Evaluation Goals

- Document Implementation experience
- Assess Technical performance
- Assess customer satisfaction
- Investigate safety impacts
- Investigate mobility impacts
- Assess potential and feasibility

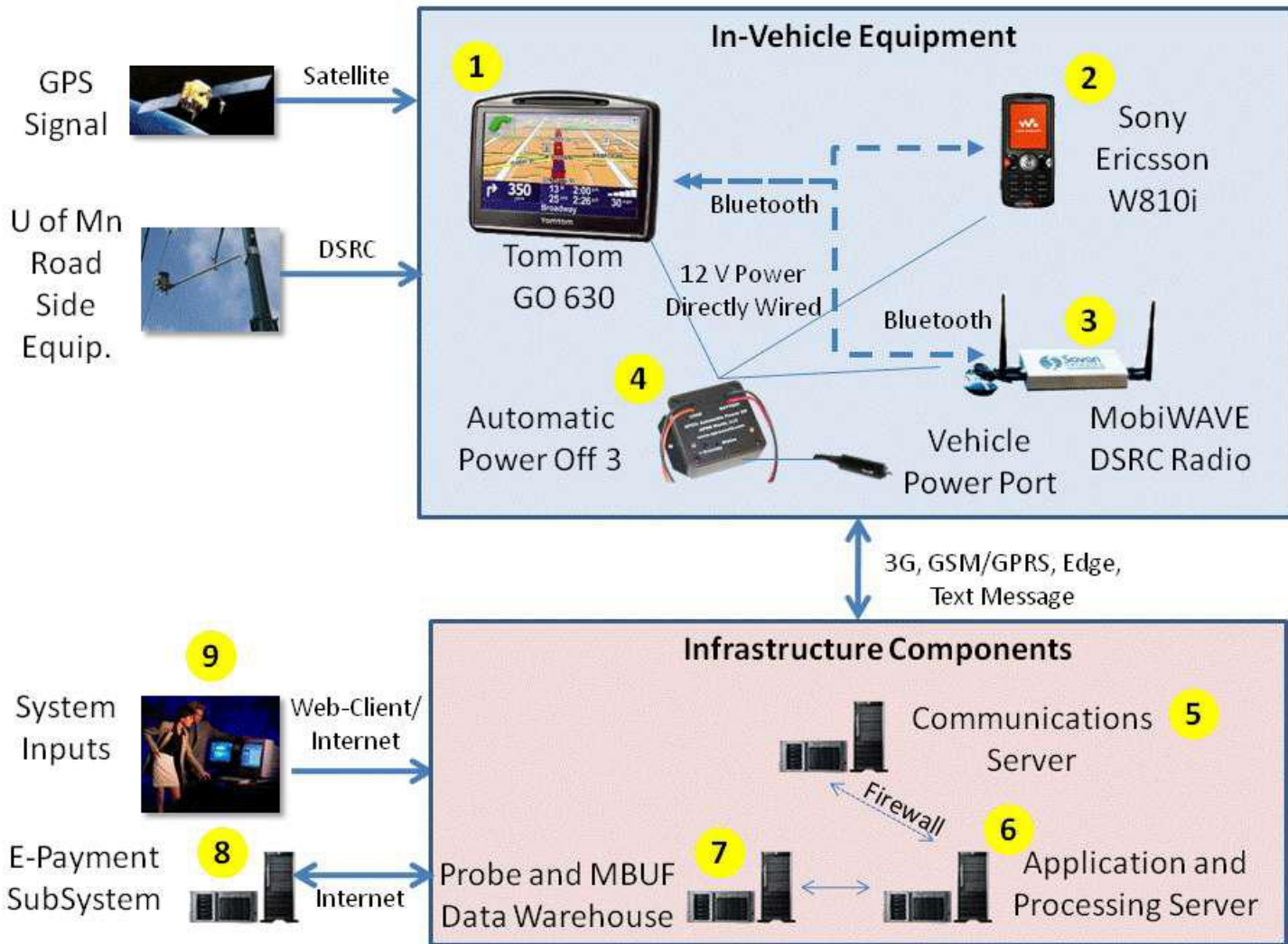




Vendor's Proposed Approach

- TomTom Go 630 + Cell Phone + Power Management Device
- GPS Measurement of Miles
- On-board Accumulating of Miles
- Cellular Data Communications
- DSRC For Intersection Warning Demo Only
- Off-The-Shelf Traffic Info and Points of Interest











Deployment Approach Considerations





Eliminate the Gas Tax?

- Unthinkable to Not Tax Gasoline?
- Easy and Inexpensive to Collect
- User-Friendly Vs. MBUF
- Complements Other Taxes and Fees
- Keeping Gas Tax Could Enable “Pure” MBUF
 - MBUF Reflecting Use of Road Vs. Fuel Use





Charge By Jurisdiction?

- **State administered roads**
 - 10 percent of all lane miles
 - 58 percent of VMT
- **Township roads**
 - 40 percent of all lane miles
 - 2 percent of VMT
- **We Already Know the VMT Distributions**
- **Privacy, Technology, Driver Behavior**





Congestion Charging By Road?

- **Driver behavior**
 - Push traffic to local roads not intended to carry high traffic volumes? Can be good or bad
- **Revenue distribution**
 - Provide higher per mile rate for roadways with the greatest VMT per lane mile?
- **Public perception**
 - Charge most for the poorest service?
 - Opposite of HOT lanes





For More Info:

[http://www.dot.state.mn.us/guidestar/
2006_2010/vii.html](http://www.dot.state.mn.us/guidestar/2006_2010/vii.html)

[http://www.dot.state.mn.us/funding/mileage-
based-user-fee/](http://www.dot.state.mn.us/funding/mileage-based-user-fee/)

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